

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the present application.

1. (currently amended) A method of modifying cell structure comprising:
introducing into a mammalian cell either biliverdin reductase or a
~~fragment or variant thereof, or a nucleic acid molecule encoding biliverdin reductase or a~~
~~fragment or variant thereof~~ under conditions effective to express biliverdin reductase ~~or the~~
~~fragment or variant thereof~~, thereby increasing the intracellular concentration of biliverdin
reductase, ~~or the fragment or variant thereof~~, and modifying the structure of the mammalian
cell,

wherein the modified cell structure is enhanced cell size, actin
microspike formation, polar cell morphology, or a combination thereof.

2. (canceled)

3. (withdrawn) The method according claim 1 wherein
biliverdin reductase is introduced into the mammalian cell.

4-7 (canceled)

8. (previously presented) The method according to claim 1 wherein
a nucleic acid molecule encoding biliverdin reductase is introduced
into the mammalian cell.

9. (previously presented) The method according to claim 8 wherein said
introducing comprises:

transfecting the mammalian cell with an infective transformation
vector comprising the nucleic acid encoding biliverdin reductase.

10. (original) The method according to claim 9 wherein the infective
transformation vector is an adenovirus vector or a retrovirus vector.

11 (original) The method according to claim 1 wherein the mammalian
cell is a stem cell, a neuronal or glial cell, a vascular smooth muscle cell, a skeletal muscle
cell, an epithelial cell, or a nucleated blood cell.

12. (original) The method according to claim 1 wherein the mammalian cell is *in vitro*.

13-26 (canceled)